Air Force Research Laboratory
Wright-Patterson AFB Ohio

Environmental, Safety, and Occupational Health Newsletter

December 2000

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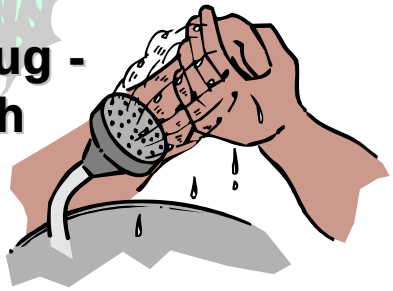
Fighting the Flu Bug - Do You Really Wash Your Hands?



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The Dirt on Hand Washing

Flu Vaccines are a scarce resource this winter so Wright-Patterson, along with the rest of Dayton and the rest of the country, is only offering flu shots to high-risk personnel such as those working in the hospital, the elderly, and people with illnesses or low immune systems. Washing your hands is always important in preventing the spread of germs, but hand washing is equally important in preventing chemical exposure to the skin. Good hand-washing skills are always important in the laboratory, not just during flu season. Even though you should always wear gloves when using chemicals, residual contamination can be found around the work area including on equipment, bench tops, doorknobs, chemical containers, faucet handles, even your lab coats. Rubbing your face and eyes, eating lunch, shaking hands, picking up your children, etc. inadvertently transfers chemical contamination and germs to you and others. You might be thinking, "How remedial; do we really need to read about washing our hands?" Well how many times have you seen someone leave the restroom or laboratory without washing his or her hands? How many times have you done the same?

People's Hand-Washing Tales a Whitewash, Study Says

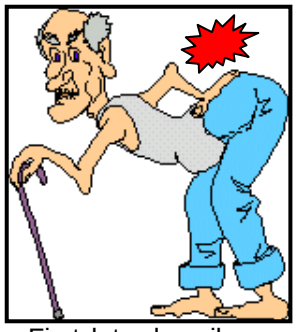
(CNN) -- When it comes to hand-washing in the United States, it's do as I say, not as I do, researchers found. The American Society for Microbiology wanted to know how many people told the truth about their hand-washing habits. So volunteers called more than 1,000 people across the country and asked. Of those surveyed, 95 percent said they always washed after using a public restroom. But then, sneaky microbiology society observers watched people in public restrooms…to see whether they actually did wash their hands. It turns out that about one third of people weren't exactly on the up and up.

"Your hands are the most important means from which germs travel from one person to another," said Dr. Julie Gerberding, director of hospital infectious programs at the Centers for Disease Control and Prevention in Atlanta. "So it would make sense that washing your hands would be an effective strategy for protecting yourself." Dr. William Jarvis, chief of the CDC hospital infection's program's investigation and prevention unit, said even health care professionals fall down on the job. "Physicians, nurses...have been documented repeatedly to not wash their hands properly," Jarvis said. "At best, it is 40 percent of the time that we recommend that they should wash their hands (that they really do)." And all it really takes is about 10 to 15 seconds worth of effort, according to Gerberding. So here's the dirt on the subject:

- Use water and soap. Water temperature doesn't matter, but the time you take does. Lather and wash for about 15 seconds, making sure to clean nooks and crannies, as well as under the fingernails.
- Rinse thoroughly under running water and dry with a clean paper towel or use a hot-air dryer.
- Some authorities also recommend that you use a paper towel to open the door with because door handles harbor germs. Throw the towel away after you leave.

"We really don't have any evidence that antibacterial soaps are any better than plain soap and water," said Gerberding. By far, the more important thing is to get into the hand-washing habit. "There are many diseases that are transmitted from person to person through hands," she continued. "Probably the most important one is the common cold virus (but)...we know there are many other more serious infections that are also transmitted through that route. Periodic outbreaks of hepatitis A have been attributed to food contamination spread by inadequate hand-washing, and a recent outbreak of shigella at a Colorado elementary school that sickened 45 children -- hospitalizing three -- also was caused by a failure to practice good hygiene. "We need to create a culture where hand washing is the thing to do," said Gerberding. "If we can just wash our hands, we will have an impact on some of the most common problems, as well as some of the most serious health problems we face."

CNN Correspondent Holly Firfer *contributed to this report.*



A Pain in Our Back

(received from Debra L. Charles, USAF
Safety Specialist, 37 TRW/SEG)

Your back is involved in every job you do. Sitting. Walking. Lifting. Bending. Reaching. Running. Even when you're resting or sleeping, your back is on the job.

First lets describe your back! Your back is composed of vertebrae, discs, a spinal cord, nerves, and muscles. All of these work together when you lift or move something. The vertebrae are the bones of the spine, cushioned by spongy discs that allow your back to move smoothly. Muscles and ligaments hold the vertebrae in delicate balance, even as you move your back.

So what makes a back hurt?

One, **poor posture** -- slouching, rounded shoulders, one hip higher than the other, and a sway back look caused by weak stomach muscles. Poor posture looks bad and feels even worse. It causes muscle tension, stiffness, backaches, neck aches, and fatigue.

Two, **lack of exercise** -the muscles supporting your back need regular exercise to stretch them and keep them strong. When they don't get it, you slouch and slump. This makes your posture worse.

Three, **overweight** individuals have a pull from their big stomachs on their backs, causing strains on those muscles. Losing weight can take a load off your back, heart, joints, and feet.

Four, **stress and worry** can cause back muscles to tense up. This can throw off your balance and trigger back injuries.

Five, **back sprains** can stretch and tear parts of your back just by bending, lifting, or reaching the wrong way.

Six, sometimes **discs in your spine can get out of line** and press on nerves in your back. This can cause pain, and even numbness in your legs;

And finally, **Osteoarthritis**, which is often part of getting older. Exercise, good posture, and smart work habits can help cut down on arthritis discomfort.

Prevention is in your control. To avoid the agony of back pain you need to do a few things:

- One, exercise your back muscles.
- Two, stretch before you do your job, sport, or recreation.
- Three, lift properly using proper lifting techniques.
- Four, eat right and stay slender. Not only will a proper diet keep you at your body's desired weight, it will give you more energy to exercise.
- And finally, learn how to reduce stress.

The **Health and Wellness Center** has excellent exercise equipment, dietary and health consultation, a stress management room, tobacco cessation classes, and many other services to help you exercise, reduce stress, and live a more healthy life.
Contact the HAWC at x**79896** or visit them in Area C, Bldg 209 (where Four Seasons used to be, next to Military Clothing Sales)

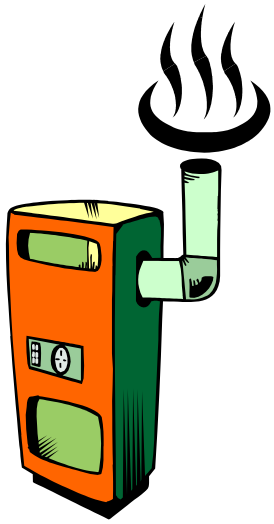
DANGERS OF CARBON MONOXIDE

Exposing an Invisible Killer

One of our readers asked that information on Carbon Monoxide poisoning be placed in this month's ESOH newsletter. Apparently a retired employee's elderly parents went to the doctor last year with the classic signs of carbon monoxide poisoning. It happened again this fall. This time someone thought that the furnace might be the problem, which it was. Fortunately the problem was corrected and the parents are ok, but others are not so fortunate. Let's take a moment to review the dangers and symptoms of carbon monoxide poisoning…

Each year in America, carbon monoxide (CO) poisoning claims more than 200 lives and sends another 10,000 people to hospital emergency rooms for treatment. It kills more people annually in the United States than any other type of poisoning. There are simple steps you can take to protect yourself from deadly carbon monoxide fumes.

UNDERSTANDING THE RISK



What is carbon monoxide?

- Carbon monoxide is an odorless, colorless and toxic gas. Because it is impossible to see, taste or smell the toxic fumes, CO can kill you before you are aware it is in your home or building. At lower levels of exposure, CO causes mild effects that are often mistaken for the flu. These symptoms include headaches, dizziness, disorientation, nausea and fatigue. The effects of CO exposure can vary greatly from person to person depending on age, overall health and the concentration and length of exposure.

This is important to remember when you go to your doctor's office complaining of flu-like symptoms. The diagnosis of carbon monoxide is easily overlooked. The test for CO is a special test not usually done, and would not necessarily be included in a routine examination. Other signs and symptoms may include slower motor function, poor judgment, chest pain, weakness, confusion, and even death. The effects of CO poisoning can get worse over time. A person exposed to low levels for a long period of time could actually be worse off than someone with a shorter exposure to a higher amount. Carbon monoxide poisoning may lead to permanent heart or brain damage. The unborn baby is at an increased risk from exposure to CO. Maternal exposure during pregnancy may result in severe harm to the baby. Adults who have heart or lung problems are also at a greater risk for difficulty due to their already compromised condition.

Where does carbon monoxide come from?

- This gaseous toxin is produced from the incomplete combustion of fossil fuels, such as wood, coal, oil, kerosene, natural gas, and propane. CO gas can come from several sources: gas-fired appliances, charcoal grills, wood-burning furnaces or fireplaces and motor vehicles.

Who is at risk?

- Everyone is at risk for CO poisoning. Medical experts believe that unborn babies, infants, children, senior citizens and people with heart or lung problems are at even greater risk for CO poisoning.

PROTECT YOURSELF AND YOUR FAMILY FROM CO POISONING

- Install at least one UL (Underwriters Laboratories) listed carbon monoxide alarm with an audible warning signal near the sleeping areas and outside individual bedrooms. Carbon monoxide alarms measure levels of CO over time and are designed to sound an alarm before an average, healthy adult would experience symptoms. It is very possible that you may not be experiencing symptoms when you hear the alarm. This does not mean that CO is not present. (CO detectors are not designed to detect smoke, fire, or any other gas).
- Have a qualified professional check all fuel burning appliances, furnaces, venting and chimney systems at least once a year.
- Never use your range or oven to help heat your home and never use a charcoal grill or hibachi in your home or garage.
- Never keep a car running in a garage. Even if the garage doors are open, normal circulation will not provide enough fresh air to reliably prevent a dangerous buildup of CO.
- When purchasing an existing home, have a qualified technician evaluate the integrity of the heating and cooking systems, as well as the sealed spaces between the garage and house. The presence of a carbon monoxide alarm in your home can save your life in the event of CO buildup.

What actions do I take if my carbon monoxide alarm goes off?

What you need to do if your carbon monoxide alarm goes off depends on whether anyone is feeling ill or not.

If no one is feeling ill:

1. Silence the alarm.
2. Turn off all appliances and sources of combustion (i.e. furnace and fireplace).
3. Ventilate the house with fresh air by opening doors and windows.
4. Call a qualified professional to investigate the source of the possible CO buildup.

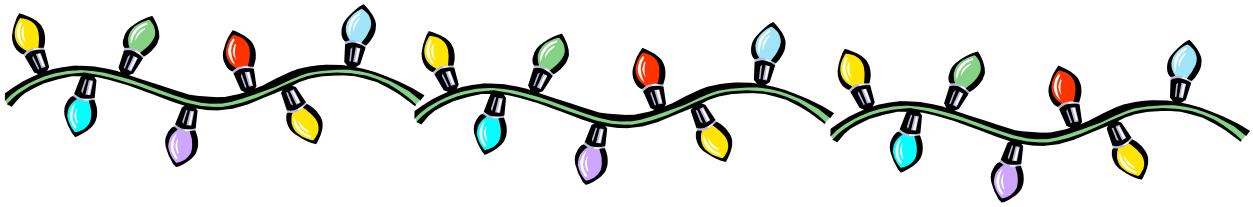
If illness is a factor:

1. Evacuate all occupants immediately.
2. Determine how many occupants are ill and determine their symptoms.
3. Call your local emergency number and when relaying information to the dispatcher, include the number of people feeling ill.
4. Do not re-enter the home without the approval of a fire department representative.
5. Call a qualified professional to repair the source of the CO.

For More Information Contact:

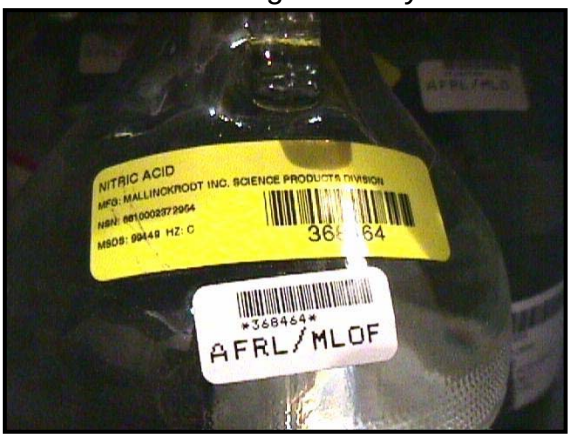
The United States Fire Administration
Office of Fire Management Programs
16825 South Seton Avenue
Emmitsburg, MD 21727
Or visit the USFA website: **www.usfa.fema.gov**

How about buying carbon monoxide detectors as Christmas gifts? They may not seem romantic but they could safe a loved one from serious illness or even death.



Don't forget that Barcode…

According to Wright-Patterson's Hazardous Materials Management Plan, all hazardous material containers must be tracked throughout their life on base. In order to implement this, chemicals are tracked through a centralized database called the Hazardous Materials Management System or HMMS. AFRL uses their own database called the Integrated Materials Management System or IMMS. When chemicals are brought on base, a barcode is placed on the container and information about that chemical is entered into one of these two databases. Some containers may have both a barcode issued by the Hazmat Cell as well as one from the user organization.



What is this information used for? In addition to keeping track of the actual location of the container, this information is used to provide annual chemical usage reporting to regulatory agencies such as the Environmental Protection Agency (EPA) as part of the Emergency Planning and Community Right-To-Know Act, or EPCRA. Wright-Patterson also works with local communities to develop emergency planning and response procedures in the event of environmental releases of hazardous materials. Knowing the amounts and types of chemicals we use on base is critical in designing proper emergency response procedures.

Unique information about every chemical on base is entered into the database, including the owner's name and organization, the location where the material is being stored, quantity, any unique hazards and storage requirements, etc. This information is very valuable for implementing pollution prevention initiatives such as minimizing stockpiling of chemicals, sharing chemicals, excess chemical distribution, and tracking chemical expiration dates for safe storage and disposal. Hazardous material managers routinely perform chemical inventories to ensure all containers are accounted for in their respective database. Whenever there is a discrepancy such as a missing container, it must be researched and corrected in order to maintain the integrity of this system. For this reason, it is critical that when a chemical container is empty, that information is noted in the database. The barcode must be retired and the ultimate demise of that container must be noted in the database.

The bottom line: **NEVER THROW AWAY A CHEMICAL CONTAINER UNTIL YOU MAKE SURE THE BARCODE IS RETIRED**. Check with your Issue Point Manager or Unit Environmental Coordinator to find out the specific procedures for your area. You wouldn't want to be responsible for creating an orphaned record in the database would you?

ESOH Training and Opportunities

CPR Training

Cardiopulmonary Resuscitation or CPR Training is required for electrical and confined space workers per 29 CFR 1910.151. The American Heart Association recommends CPR refresher training every two years and the American Red Cross recommends CPR refresher training every year.

CPR training (per the American Heart Association) is provided at the Base Hospital every Tuesday provided that there are enough students for a class. If you are interested in receiving CPR training, contact Marcia Wilson at x79347.

RCRA Hazardous Waste Training

Initial Training - 18 Jan 01
Schedule with **Shelly Baty** x77152 x281

Annual Refresher Training
AFRL Employees Only: **13 Dec 00**
Schedule with **Mary Shelly** x59000

Organizations other than AFRL: **21 Dec 00**
Schedule with **Shelly Baty** x77152 x281

ESOH Awareness Training - 10 Jan, 11 Apr, 11 Jul, 10 Oct 01

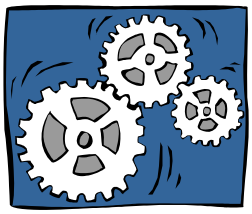
Schedule with Public Health at 52515

This course covers a broad range of topics and requirements that apply to all of us at Wright-Patterson. Course is highly recommended for all employees on Base.

Operational Risk Management Training (Level II)

14 Dec 00 (8:00-1:00)

Call Chuck Swankhaus at 43390 to schedule



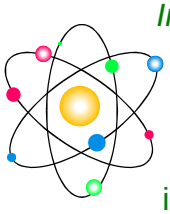
This course will teach you the skills necessary to anticipate and avoid costly and possibly injurious mistakes or delays in your program. By learning and applying tools to identify and eliminate potential land mines BEFORE they occur, your project will run more smoothly. This is NOT just a safety program. Any task you're faced with requires proper planning to ensure successful completion.

Crane and Hoist Training (AFRL only)

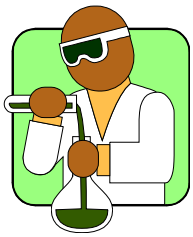
If you work with cranes and hoists as part of your job, you are required by OSHA 1910.178 and AFOSH Std. 91.46 to receive training on the equipment. We are currently evaluating the need for providing this training at AFRL. If you are interested, please contact **Mary Shelly** at x59000.

Air Force Form 813s -
Request for Environmental Impact Analysis

Prior to initiation of projects that may have any impacts to air, water, soil, cultural and natural resources (and other environmental impacts), completion of an AF Form 813 is a must. This is the Air Force's way of complying with the National Environmental Policy Act. **Have you completed your AF Form 813?** We in Environmental Management use this form to determine if there are any potential detrimental impacts to the environment PRIOR to initiation of your project. This way we can attempt to reduce or prevent pollution or environmental damage while you complete your project.



In most cases, processing of an AF Form 813 is very quick, however there are some things that must be included on the 813s before they can be approved. More complicated projects taking place on base may require a bit more time, and on occasion, an Environmental Assessment may need to be performed. For more information on the AF Form 813, see Environmental Management's Home Page at:
http://www.abwem.wpafb.af.mil/em/emp/impact_analysis/impact.htm



Contact Mary Shelly at 59000 to get electronic instructions for completing the AF Form 813 for both on-base and off-base work.

For great tips on Winter Driving Safety including Black Ice, Holiday Safety Tips, Drinking and Driving, Choosing Safe Toys, and lots of other great safety information, visit the ASC Safety Home Page at:
https://www.asc.wpafb.af.mil/asc/safety/winter/winter.htm

For more information on ESOH topics, visit the following Home Pages:
ASC/SEG Safety Office: https://www.asc.wpafb.af.mil/asc/safety/index.html
88 ABW Environmental Management: http://www.abwem.wpafb.af.mil/em/default.cfm
Bioenvironmental Management: http://www.bio.wpafb.af.mil/

Send any comments or suggestions regarding this newsletter to **Mary Shelly** at 5-9000.